

N.C. 27 and N.C. 1032 in 1947. Great strides were also made in tobacco research. The first major disease-resistant varieties were Oxford 1 and Oxford 26, released in 1943 and 1944 respectively.

The amount of wheat seed being certified was greatly increased by the release of Atlas 50 and Atlas 66 from the Experiment Station in 1948. By 1950 there were 304 farmers producing certified seed of Atlas 50 and 335 producing Atlas 66. Six barley varieties were released for certification during the forties. Colonial, released in 1948, was the leading variety. Three improved oat varieties were released during this period, but Fulgrain and Victograin, released in 1944, were grown by most certified seed growers.

During the forties the leading cotton varieties were released by Coker's Pedigreed Seed Company. Coker 100 Wilt, released in 1942, became a mainstay for North Carolina cotton farmers and was the leading variety in the certification program.

The expansion of the seed certification program in the forties, especially in the hybrid seed corn program, began to tax the ability of research workers at the Experiment Station to keep pace with demand for seed of their new varieties. The breeders lacked adequate time and facilities to multiply these varieties in sufficient quantities for distribution to all certified seed growers. To solve this problem, the North Carolina Foundation Seed Producers, Inc., was founded on June 6, 1945. The primary function of this nonprofit corporation was to cooperate with the North Carolina Agricultural Experiment Station, the U.S. Department of Agriculture and other public agencies in making available to North Carolina farmers Foundation Seed of new and improved varieties. Research workers at the Experiment Station turned over their small quantities of Breeder Seed of varieties approved for release to the Foundation Seed Producers, Inc. This organization, in turn, had the seed increased under contract with good farmers for distribution to certified seed growers. At first the major crop handled by the Foundation Seed Producers was hybrid corn, but soon after the group was organized many other crops were added.

## **The Fifties**

The Crop Improvement Association continued to grow throughout the 1950's. It was a time of many "firsts." The first verification plantings (plant-out tests) for small grain were made at the Piedmont Research Station in 1952. The verification plantings were designed to assess the varietal purity of individual seed lots by planting a small, representative sample from each lot being certified. Verification tests are still a very important part of the certification program and now involve small grain, peanuts, and soybeans. The first "embryo test" for detecting loose smut in certified barley seed before it is sold was also established in this period.

The first certification of a commercially developed corn was made in the fifties. Before that time, only varieties developed by the Experiment Station had been certified.

Standards were approved for the production of certified strawberry plants and for vegetatively propagated grasses. With the mechanization of cotton production and the expansion in the seed program, changes were made in certification